Abstract:

Objective: Whilst much is known about the psychopathology of mTBI, clinicians have difficulty in deciding which patients require intervention or further care. There is a need to develop simple methods and tools to identify those cases whose recovery will be problematic. The NeuroTrauma Research Group has examined a wide range of brief demographic and clinical measures to develop such tools.

Method: A population sample of 450 patients presenting with mTBI at the Department of Emergency Medicine, Royal Hobart Hospital, were followed to examine outcome in terms of return to work/study, and post-concussion symptoms (measured using the Rivermead Post-Concussion Symptom Questionnaire, Rivermead PCS). Data were collected on a wide range of variables, including demographic (years of education, age, sex), psychosocial (anxiety, depression, quality of life), functional (Functional Independence Measure, FIM; Disability Rating Scale, DRS), and clinical (loss of consciousness, post-traumatic amnesia, PTA; post-concussion symptoms, Rivermead PCS). These variables were used to investigate predictors of time to return to work/study, and post-concussion symptoms up to 12 months post-trauma, using multiple regression. Data were collected within 1 week of TBI, and at 14 days, 28 days, 3 months, 6 months, and 12 months post-injury.

Results: Variables contributing to the prediction of return to work included initial measures of anxiety, depression, fatigue, pain, and other post-concussion symptoms, as well as age. Pre-morbid quality of life, initial FIM, and PTA were amongst the variables contributing little to outcome prediction. Prediction of post-concussion symptoms at 6 and 12 months post-TBI was related to initial symptomatology, including anxiety and depression.

Discussion: Our research to date suggests it is feasible to provide clinicians with a small range of measurement tools which will enable them to identify patients who do/do not require additional care or intervention following mTBI.